WHAT IS CLAIMED IS:

1. A method of expressing a heterologous nucleic acid sequence in a vascular cell comprising administering to the cell a recombinant replicating herpes simplex viral vector comprising a heterologous nucleic acid, wherein the herpes simplex virus is debilitated for growth in the central nervous system.

2. The method of claim 1, wherein the herpes simplex virus is debilitated by non-silent insertion, substitution, or deletion of a nucleotide sequence in at least one non-essential gene of the herpes simplex virus.

3. The method of claim 3, wherein the herpes simplex virus further comprises a non-silent insertion, substitution, or deletion of a nucleotide sequence in at least one essential gene of the herpes simplex virus.

4. The method of claim 1, wherein the recombinant HSV vector lacks at least one expressible $\gamma_1$34.5 gene.

5. The method of claim 1, wherein the recombinant HSV vector lacks two expressible $\gamma_1$34.5 genes.

6. The method of claim 1, wherein the vascular cell is an endothelial cell.

7. The method of claim 1, wherein the vascular cell is a smooth muscle cell.

8. The method of claim 1, wherein the vascular cell is an adventitial cell.

9. The method of claim 1, wherein the heterologous nucleic acid sequence encodes a polypeptide.

10. The method of claim 9, wherein the polypeptide is selected from the group consisting of an antiproliferative polypeptide, a vasodilatory polypeptide, and an angiogenic polypeptide.

11. The method of claim 1, wherein the heterologous nucleic acid sequence encodes an antisense oligonucleotide or antisense polynucleotide.

12. The method of claim 11, wherein the antisense oligonucleotide or antisense polynucleotide is complementary to an RNA encoding an antiproliferative polypeptide, vasodilatory polypeptide, or angiogenic polypeptide.

13. The method of claim 1, wherein the herpes simplex virus is HSV-1.

14. The method of claim 1, wherein the herpes simplex virus is HSV-2.

15. The method of claim 1, wherein the herpes simplex virus further comprises at least one gene essential for the treatment of a herpes simplex virus infection by an anti-viral agent.

16. A method of treating or preventing a cardiovascular disease or condition in a vascular cell comprising administering to the cell a recombinant replicating herpes simplex viral vector comprising a heterologous nucleic acid sequence, wherein the herpes simplex virus is debilitated for growth in the central nervous system.

17. The method of claim 16, wherein the herpes simplex virus is debilitated by non-silent insertion, substitution, or deletion of a nucleotide sequence in at least one non-essential gene of the herpes simplex virus.

18. The method of claim 17, wherein the herpes simplex virus further comprises an insertion, substitution, or deletion of a nucleotide sequence in at least one essential gene of the herpes simplex virus.

19. The method of claim 16, wherein the recombinant HSV vector lacks an expressible $\gamma_1$34.5 gene.

20. The method of claim 16, wherein the recombinant HSV vector lacks two expressible $\gamma_1$34.5 genes.

21. The method of claim 16, wherein the cardiovascular condition is hypertension in a vascular tissue.

22. The method of claim 16, wherein the heterologous nucleic acid sequence is expressed in vascular tissue for a duration selected from the group consisting of more than 7 days, more than 14 days, more than 21 days, more than 28 days, more than 35 days, or more than 70 days.

23. The method of claim 16, wherein the heterologous nucleic acid sequence encodes a screenable or selectable marker.

24. The method of claim 16, wherein the heterologous nucleic acid sequence is an antithrombotic nucleic acid, an angiogenesis regulating nucleic acid, an immunomodulator, an inducer of cellular proliferation, an inhibitor of cellular proliferation or a regulator of programmed cell death.

25. The method of claim 16, wherein the cardiovascular disease or condition is selected from the group consisting of chronic heart failure, hypertensive cardiovascular disease, ischemic heart disease, arrhythmia, congenital heart disease, valvular heart disease or stenotic defect, cardiomyopathy, aneurysm, chronic venous insufficiency, peripheral arterial disease, or restenosis.

26. The method of claim 16, further comprising administering at least one pharmacological agent to said vascular cell.

27. The method of claim 26, wherein said pharmacological agent is selected from the group consisting of an antihyperlipoproteinemic agent, an antiarteriosclerotic agent, an antithrombotic/fibrinolytic agent, a blood coagulant, an

antiarrhythmic agent, an antihypertensive agent, a vasopressor, a treatment agent for congestive heart failure, an antianginal agent, and an anti-infection agent.

28. The method of claim 16 wherein the herpes simplex virus is HSV-1.

29. The method of claim 16 wherein the herpes simplex virus is HSV-2.

30. The method of claim 16, wherein the herpes simplex virus further comprises at least one gene essential for the treatment of a herpes simplex virus infection by an anti-viral agent.

31. A method of inducing normal physiology in a functionally abnormal vascular cell comprising administering to the cell a recombinant replicating herpes simplex viral vector comprising a heterologous nucleic acid sequence, wherein the herpes simplex virus is debilitated for growth in the central nervous system.

32. The method of claim 31, wherein the herpes simplex virus vector is debilitated by non-silent insertion, substitution, or deletion of a nucleotide sequence of at least one non-essential gene of the herpes simplex virus.

33. The method of claim 32, the herpes simplex virus further comprises a non-silent insertion, substitution, or deletion of a nucleotide sequence in at least one essential gene of the herpes simplex virus.